

# Scenario-based analysis

## *Scheduling Activities for the Patrol Boat Force*



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# Objective and Method

- Objective
  - To understand the implications of the current government guidance for new patrol boat fleet and find better ways to manage the new fleet
- Method
  - Statistics



# Analysis targets

- Boat
- Crew



# Scenario

- Typical annual missions programmed
- Generic maintenance schedule
- Boats: 12 (Min. practical No.)
- Crews: 12, 15 and 18





# Typical Missions Programmed

	Boat-days
(a) 34 x 1 boat x 6 weeks NCSP Areas 2-4	1806 { 1428 168 210
(b) 4 x 1 x 6 wks NCSP Area 6 (Nov-Mar)	
(c) 5 x 1 x 6 wks NCSP Areas 1,5	
(d) 4 x 2 x 8 wks Overseas Visits (Feb-Nov)	448
(e) 2 x 2 x 3 wks Overseas Exercises (1 each half yr)	84
(f) 1 x 8 x 5 days Minor War Vessel Concentration	40
(g) 8 x 1 x 1 wk Local Exercises (Feb-Nov)	56
(h) 10 x 1 x 3 wks Workup plus 10 x 1 x 2 wks Consort (Feb-Nov)	350
(i) 10 x 1 x 3 wks Contingency Tasks Areas 1-6	210

(These figures do not include surge requirements)

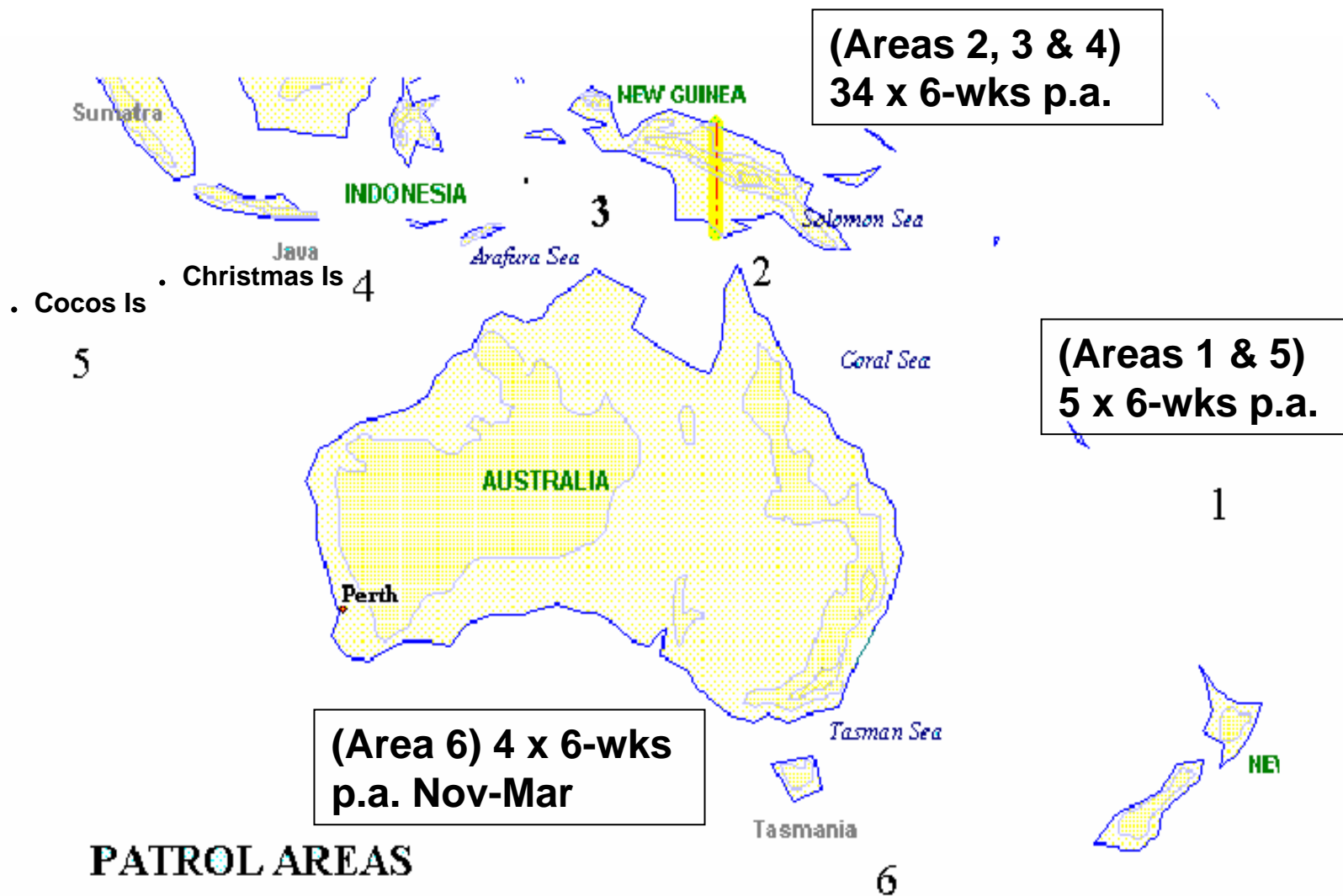
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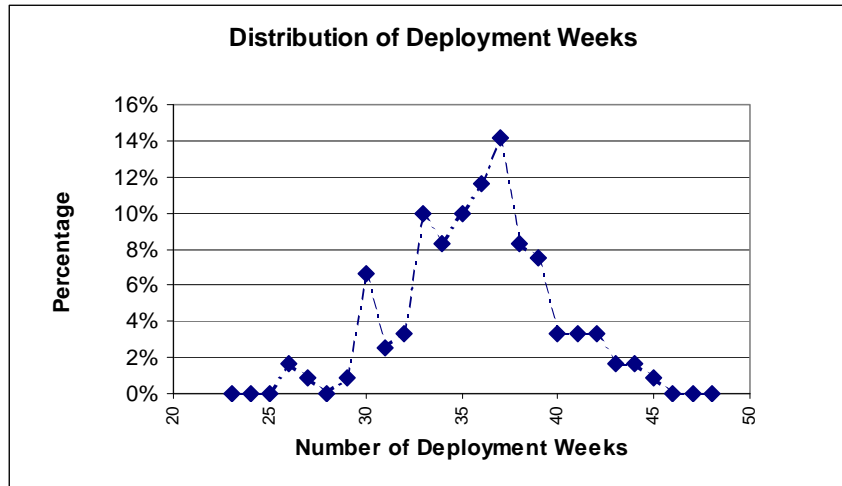




# National Civil Surveillance Program

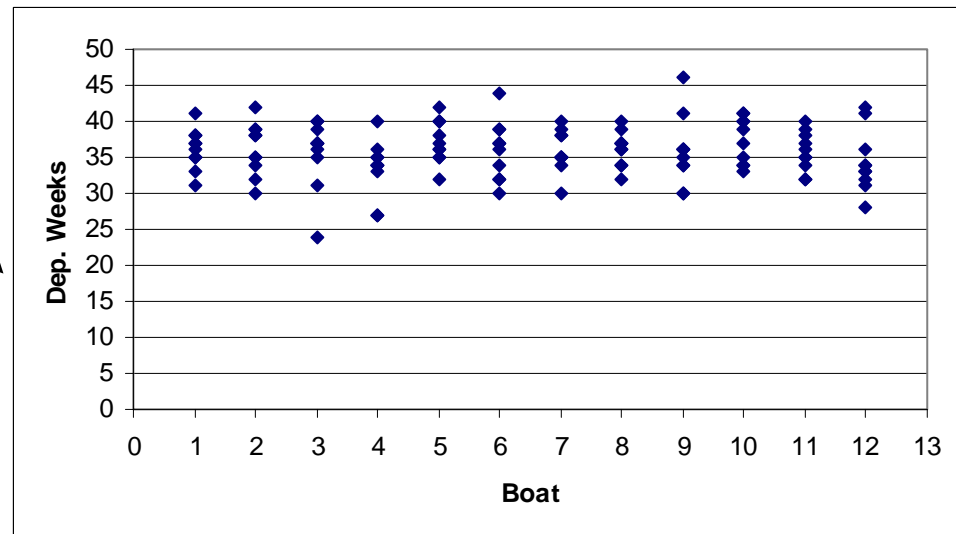


# Boat Deployment



- 10 FAS samples
- Normal distribution
- Mean: 36 wk (250 days)
- 95% in 30 ~ 42 weeks

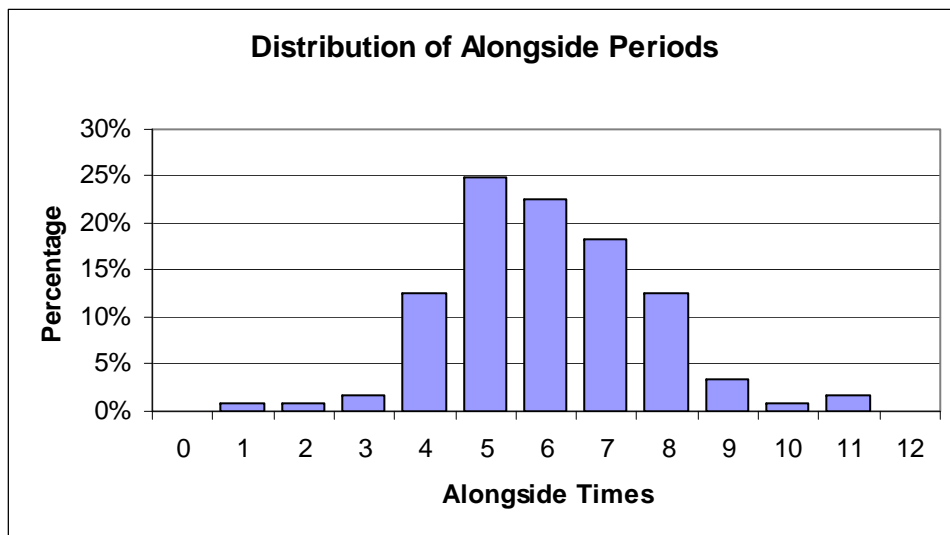
A different presentation of the 10 FAS samples (120 boat samples)





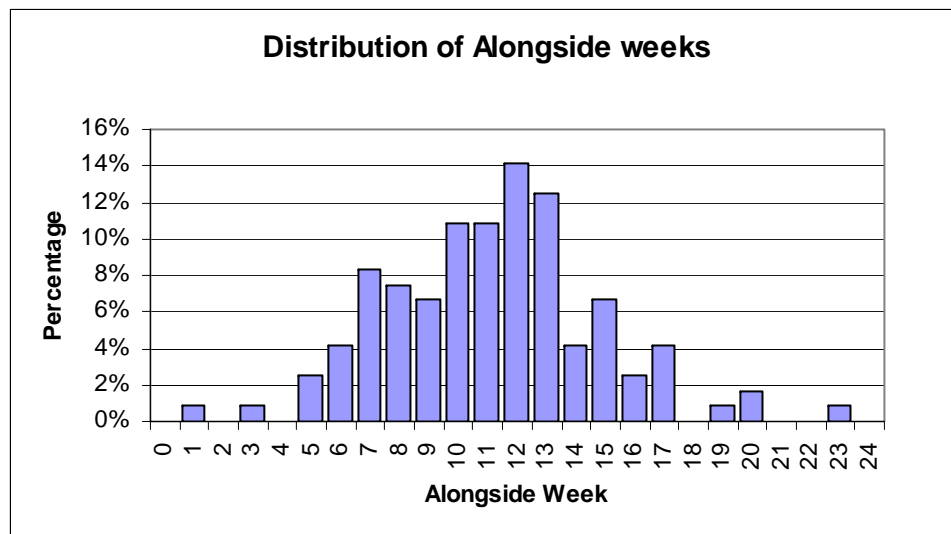


# Boat Alongside



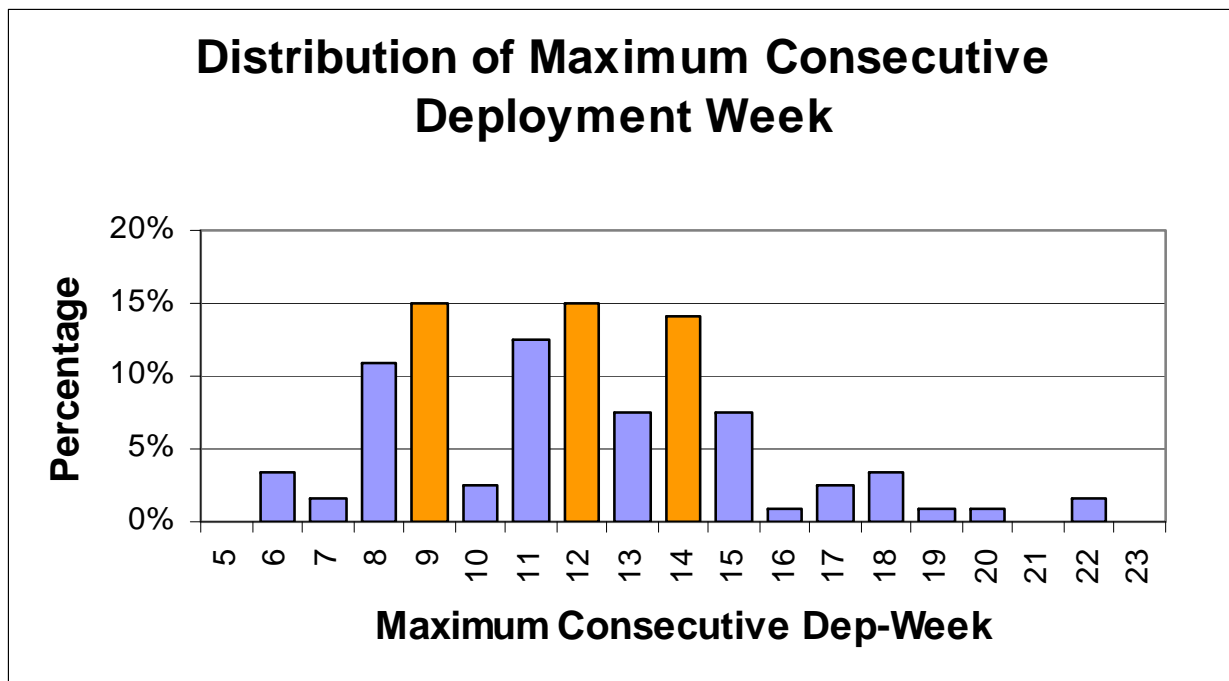
- Alongside period: average 6 times per boat per year
- 90% between 4 and 8 times

- Alongside weeks: Av. 11 weeks
- 95% in 5 ~ 17 wks





# Consecutive Deployment

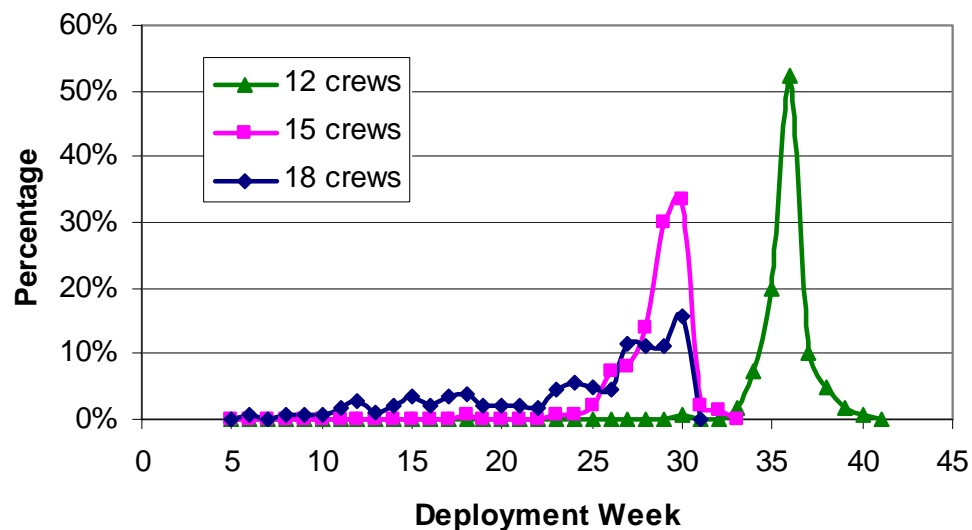


- 9, 12 and 14 weeks are most likely to be required for boat to continue to work
- 85% in 8~15 weeks



# Crew Deployment

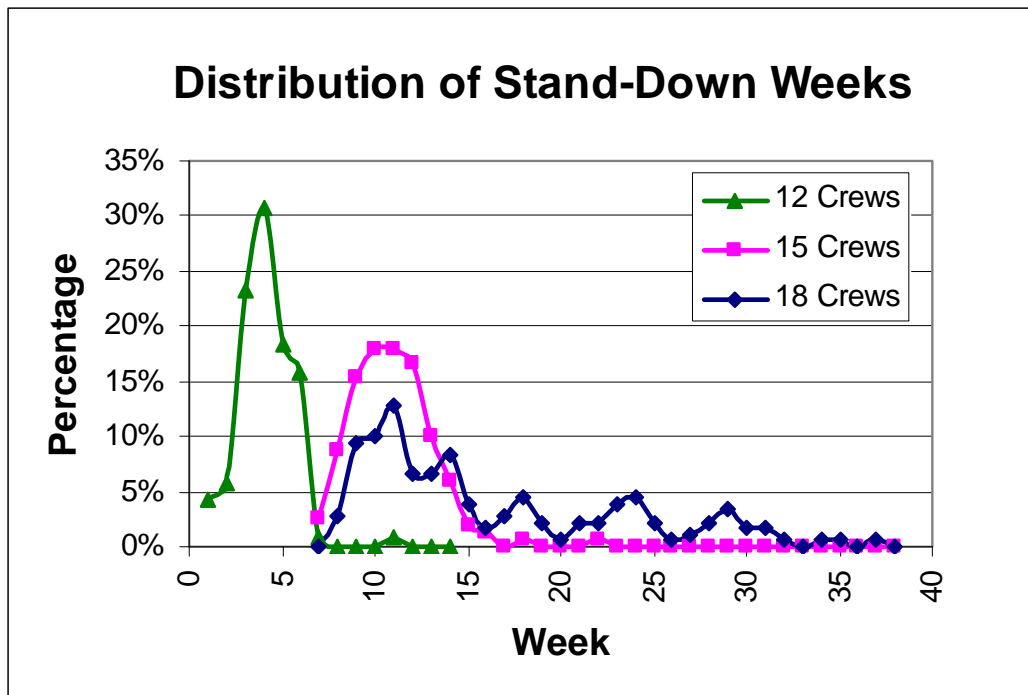
**Distribution of Crew Deployment**



No. Crew	18	15	12
Av. Weeks (Days)	24 (170)	29 (200)	36 (250)
St. Dev	6	2	1



# Crew Stand-Down



No. Crew	18	15	12
Av. Weeks	16	11	4
St. Dev	7	2.2	1.5





# Key Conclusions

- Recommend to upgrade the tool as an Operational Tool
- For 12 boats, a 14-week consecutive deployment is likely to be required
- There is always a tension between 'equity' and 'quality of life' if multi-crewing is introduced
- In the scenario tested here, a 15-crew scheme gives a reasonable balance



# Questions?

